

Vinegar and Baking Soda Experiment Worksheet Name _____

1. What is the Law of Conservation?

2. What is chemical bonding?

3. What is a chemical change?

4. What is a chemical reaction?

5. List the indicators of chemical change while viewing a chemical reaction.

a. _____

b. _____

c. _____

d. _____

e. _____

f. _____

g. _____

h. _____

6. You have different color beads:

5 white = O (oxygen)

3 yellow = C (carbon)

1 clear = Na (sodium)

5 blue = H (hydrogen)

7. What is the chemical make-up of baking soda?

Put the beads together that make up baking soda on a bendable wire.

8. What is the chemical make-up of vinegar?

Put the beads together that make up baking soda on a bendable wire.

9. Put your safety glasses on.

- Put a heaping spoonful of baking soda in the balloon.
- Put in 30 ml of vinegar in the bottle.
- Put the balloon over the mouth of the bottle without spilling the baking soda.

10. Weigh the bottle with vinegar and the baking soda in the balloon together and write it down in grams. _____

11. Feel the bottom of the bottle to see what the temperature is. _____

12. When we mix the two together, they will cause a chemical change. But first, during the chemical reaction, the bonds will be broken between all the atoms and they will be separated. Write those below:

13. Tip the balloon up so the baking soda goes into the vinegar. Weigh the bottle with new substances in the bottle and the balloon together and write it down in grams.

14. Describe what you observe through your five senses:

Sight: _____

Hearing: _____

Touch: _____

Smelling: _____

15. What are the five chemical changes that you observe.

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

5 white = O (oxygen)
3 yellow = C (carbon)
1 clear = Na (sodium)
5 blue = H (hydrogen)

16. What are the new substances and their chemical make-ups?

- a. _____
Put the beads together to make this chemical make-up.
- b. _____
Put the beads together to make this chemical make-up.
- c. _____
Put the beads together to make this chemical make-up.

17. What are your conclusions about this experiment?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____